

SETON HILL COLLEGE  
GREENSBURG, PENNSYLVANIA

THE DEPARTMENT OF BIOLOGY

November 15, 1947

Dear Josh,

Last spring I visited Columbia and heard from Marion (Mantlinband) Himes that you are at Yale. She also told me that you were busily engaged proving that bacteria have sex. I explained this to one of my bacteriologist-ic friends, who was horrified. However, I have encountered some of Dr. Tatum's printed matter and I see that you are making convincing progress, therefore I promptly referred my friend to this.

I notice also that you are doing some work on producing mutations by treatment with mustard gas. One of the members of our staff is considering doing some work on the effect of mustard gas in differentiation and it occurred to me that you might be able to tell us something about handling it.

An article in the October 17 issue of Science describes a method of preparing mustard gas from  $\beta\beta'$ -dihydroxy ethyl sulfide, by treating with HCl. Is this the form in which you use it? Apparently, the mustard is an oil and upon being absorbed on filter paper in a

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U-tube and at the proper temperature (what?) an effective concentration can be transferred to water containing the material to be treated.

You can see that I know very little about this, but I should appreciate very much any information you could send me about the most satisfactory way of preparing and using mustard gas experimentally. The material we are considering using are tunicate embryos. Or if you can refer me to any publications which would give information along the same line, I'd be very grateful.

I finished at Columbia a year ago in December, and have since been occupying myself teaching freshmen the difference between low power and high power, and biology majors, the histological facts of life. I miss the excitement of New York and the seminars at Columbia, but otherwise I am thriving on the Pennsylvania air.

Marion also told me that you are married, so (rather belatedly) may I offer my congratulations. The next time I meet a glass of champagne (or Southern Comfort) I'll drink to your happiness.

Sincerely yours,

Pat Daugherty